



1

SEQUENCE LISTING

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LAZAROVITS, JANETTE

<120> Y1 - ISOLATED MOLECULES COMPRISING EPITOPEs
CONTAINING SULFATED MOIETIES, ANTIBODIES TO SUCH
EPITOPEs, AND USES THEREOF

<130> 10793/44

<140> 10/032,037
<141> 2001-12-31

<150> 60/258,948
<151> 2000-12-29

<160> 270

<170> PatentIn Ver. 3.3

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Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
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Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
35 40 45

Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
50 55 60

Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
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Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val
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Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala
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Arg Tyr Tyr Cys Arg Ser Ser Asp Cys Thr Val Ser
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 Met Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala
 1 5 10 15

Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 20 25 30

Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45

Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50 55 60

Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65 70 75 80

Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85 90 95

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly
 115 120 125

Gln Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Ser Gly Gly
 130 135 140

Gly Gly Ser Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
 145 150 155 160

Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
 165 170 175

Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln
 180 185 190

Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile
 195 200 205

Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
 210 215 220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
 225 230 235 240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
 245 250 255

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Ser Trp Ala Asp Ile Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg
 20 25 30

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 35 40 45

Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 50 55 60

Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala
 65 70 75 80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 85 90 95

Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr
 115 120 125

Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
 130 135 140

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
 145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
 180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
 195 200 205

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 210 215 220

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
 225 230 235 240

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
 245 250 255
 Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 260 265 270
 Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 275 280 285
 Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 290 295 300
 Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
 305 310 315 320
 Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 325 330 335
 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 340 345 350
 Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 355 360 365
 Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
 370 375 380
 Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 385 390 395 400
 Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Ser Pro Val Leu Asp
 405 410 415
 Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
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 Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
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 450 455 460

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 Ser Trp Ala Asp Ala Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala
 20 25 30

Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser
 35 40 45

Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 50 55 60

Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe
 65 70 75 80

Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala
 85 90 95

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser
 100 105 110

Gly Asn His Val Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
 115 120 125

Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
 130 135 140

Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
 145 150 155 160

Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
 165 170 175

Lys Ala Gly Val Glu Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
 180 185 190

Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
 195 200 205

His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
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Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230

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 Phe Leu Thr Tyr Asn Ser Tyr Glu Val Pro Thr
 1 5 10

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Thr	Asn	Trp	Tyr	Leu	Arg	Pro	Leu	Asn
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Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10				15		

Thr	Val	Lys	Ile	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Phe	Thr	Asp	Tyr
							20		25			30			

Tyr	Met	His	Trp	Val	Gln	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
					35			40				45			

Gly	Leu	Val	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Glu	Lys	Phe
					50		55				60				

Gln	Gly	Arg	Val	Thr	Ile	Thr	Ala	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
					65		70			75			80		

Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
					85			90				95			

Ala Thr

<210> 31

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Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10				15		

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Ile	Phe	Thr	Asp	Tyr
					20			25				30			

Tyr	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Glu	Leu	Gly	Trp	Met
					35			40			45				

Gly	Arg	Ile	Asn	Pro	Asn	Ser	Gly	Gly	Thr	Asn	Tyr	Ala	Gln	Lys	Phe
					50			55			60				

Gln	Gly	Arg	Val	Thr	Met	Thr	Arg	Asp	Thr	Ser	Ile	Ser	Thr	Ala	Tyr
					65		70			75			80		

Thr	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Thr	Tyr	Tyr	Cys
					85			90				95			

Ala Arg

<210> 32
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Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20 25 30

Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45

Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Thr

<210> 33
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 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Arg Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Ser Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Val Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 34
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 <213> Homo sapiens

<400> 34
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 35
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<400> 35
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
 20 25 30

Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Trp Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30

Tyr Met His Trp Val Xaa Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

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<213> Homo sapiens

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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Cys Met His Trp Val Arg Gln Val His Ala Gln Gly Leu Glu Trp Met
35 40 45

Gly Leu Val Cys Pro Ser Asp Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60

Gln Ala Arg Val Thr Ile Thr Arg Asp Thr Ser Met Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Val Arg

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<210> 38
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 Gln Met Gln Leu Val Gln Ser Gly Pro Glu Val Lys Lys Pro Gly Thr
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Thr Ser Ser
 20 25 30
 Ala Val Gln Trp Val Arg Gln Ala Arg Gly Gln Arg Leu Glu Trp Ile
 35 40 45
 Gly Trp Ile Val Val Gly Ser Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Glu Arg Val Thr Ile Thr Arg Asp Met Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Ala

<210> 39
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 <213> Homo sapiens

<400> 39
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
 20 25 30
 Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

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<210> 40
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<400> 40
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
20 25 30

Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Arg Ile Ile Pro Ile Leu Gly Ile Ala Asn Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

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<210> 41
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<213> Homo sapiens

<400> 41
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Ala Met His Trp Val Arg Gln Ala Pro Gly Gln Arg Leu Glu Trp Met
35 40 45

Gly Trp Ile Asn Ala Gly Asn Gly Asn Thr Lys Tyr Ser Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

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<210> 42

<211> 98

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<213> Homo sapiens

<400> 42

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
				20				25					30		

Ala	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Arg	Leu	Glu	Trp	Met
				35			40				45				

Gly	Trp	Ser	Asn	Ala	Gly	Asn	Gly	Asn	Thr	Lys	Tyr	Ser	Gln	Glu	Phe
			50			55			60						

Gln	Gly	Arg	Val	Thr	Ile	Thr	Arg	Asp	Thr	Ser	Ala	Ser	Thr	Ala	Tyr
			65			70			75					80	

Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Met	Ala	Val	Tyr	Tyr	Cys
			85				90					95			

Ala Arg

<210> 43

<211> 98

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<213> Homo sapiens

<400> 43

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ser	Glu	Leu	Lys	Lys	Pro	Gly	Ala
1				5					10					15	

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
				20			25					30			

Ala	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
				35			40				45				

Gly	Trp	Ile	Asn	Thr	Asn	Thr	Gly	Asn	Pro	Thr	Tyr	Ala	Gln	Gly	Phe
			50			55			60						

Thr	Gly	Arg	Phe	Val	Phe	Ser	Leu	Asp	Thr	Ser	Val	Ser	Thr	Ala	Tyr
			65			70			75					80	

Leu	Gln	Ile	Cys	Ser	Leu	Lys	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85			90				95				

Ala Arg

<210> 44
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<400> 44
 Gln Val Gln Leu Val Gln Ser Gly Ser Glu Leu Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Ile Asn Thr Asn Thr Gly Asn Pro Thr Tyr Ala Gln Gly Phe
 50 55 60

Thr Gly Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr
 65 70 75 80

Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 45
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 <212> PRT
 <213> Homo sapiens

<400> 45
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Thr Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 46

<211> 98

<212> PRT

<213> Homo sapiens

<400> 46

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
								25					30		

Gly	Ile	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
						35		40					45		

Gly	Trp	Ile	Ser	Ala	Tyr	Asn	Gly	Asn	Thr	Asn	Tyr	Ala	Gln	Lys	Leu
						50		55				60			

Gln	Gly	Arg	Val	Thr	Met	Thr	Thr	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70				75					80	

Met	Glu	Leu	Arg	Ser	Leu	Arg	Ser	Asp	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
					85			90					95		

Ala Arg

<210> 47

<211> 92

<212> PRT

<213> Homo sapiens

<400> 47

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	

Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
								25					30		

Gly	Ile	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
						35		40				45			

Gly	Trp	Ile	Ser	Ala	Tyr	Asn	Gly	Asn	Thr	Asn	Tyr	Ala	Gln	Lys	Leu
						50		55			60				

Gln	Gly	Arg	Val	Thr	Met	Thr	Thr	Asp	Thr	Ser	Thr	Ser	Thr	Ala	Tyr
65					70				75					80	

Met	Glu	Leu	Arg	Ser	Leu	Arg	Ser	Asp	Asp	Thr	Ala				
					85			90							

<210> 48

<211> 98

<212> PRT

<213> Homo sapiens

<400> 48
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 49
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 49
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Asn Ser Tyr
 20 25 30
 Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 50
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 50
 Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Thr Gly Ser
 1 5 10 15

 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Tyr Arg
 20 25 30

 Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln Ala Leu Glu Trp Met
 35 40 45

 Gly Trp Ile Thr Pro Phe Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

 Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser Met Ser Thr Ala Tyr
 65 70 75 80

 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

 Ala Arg

<210> 51
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 51
 Gln Met Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Thr Gly Ser
 1 5 10 15

 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Tyr Arg
 20 25 30

 Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln Ala Leu Glu Trp Met
 35 40 45

 Gly Trp Ile Thr Pro Phe Asn Gly Asn Thr Asn Tyr Ala Gln Lys Phe
 50 55 60

 Gln Asp Arg Val Thr Ile Thr Arg Asp Arg Ser Met Ser Thr Ala Tyr
 65 70 75 80

 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

 Ala Arg

<210> 52
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 52
 Gln Val Thr Leu Lys Glu Ser Gly Pro Val Leu Val Lys Pro Thr Glu
 1 5 10 15

 Thr Leu Thr Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Asn Ala
 20 25 30

 Arg Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
 35 40 45

 Trp Leu Ala His Ile Phe Ser Asn Asp Glu Lys Ser Tyr Ser Thr Ser
 50 55 60

 Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Ser Gln Val
 65 70 75 80

 Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

<210> 53
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 53
 Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1 5 10 15

 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

 Glu Trp Cys Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu Trp
 35 40 45

 Leu Ala Leu Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser Leu
 50 55 60

 Lys Ser Arg Leu Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val Val
 65 70 75 80

 Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr Cys
 85 90 95

 Ala His Arg

<210> 54
 <211> 96
 <212> PRT
 <213> Homo sapiens

<400> 54
 Gln Val Thr Leu Arg Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
 1 5 10 15

 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

 Gly Met Cys Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
 35 40 45

 Trp Leu Ala Leu Ile Asp Trp Asp Asp Asp Lys Tyr Tyr Ser Thr Ser
 50 55 60

 Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80

 Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

<210> 55
 <211> 96
 <212> PRT
 <213> Homo sapiens

 <400> 55
 Gln Val Thr Leu Lys Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
 1 5 10 15

 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

 Gly Met Arg Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
 35 40 45

 Trp Leu Ala Arg Ile Asp Trp Asp Asp Asp Lys Phe Tyr Ser Thr Ser
 50 55 60

 Leu Lys Thr Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80

 Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

<210> 56
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 56
 Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Val Lys Pro Thr Gln
 1 5 10 15

 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

 Gly Val Gly Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
 35 40 45

 Trp Leu Ala Leu Ile Tyr Trp Asn Asp Asp Lys Arg Tyr Ser Pro Ser
 50 55 60

 Leu Lys Ser Arg Leu Thr Ile Thr Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80

 Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

 Cys Ala His Arg
 100

<210> 57
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 57
 Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30

 Tyr Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

 Gly Arg Thr Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60

 Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
 65 70 75 80

 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95

 Tyr Cys Ala Arg
 100

<210> 58
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 58
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30

 Tyr Met Ser Trp Val Arg Gln Ala Gln Gly Lys Gly Leu Glu Leu Val
 35 40 45

 Gly Leu Ile Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60

 Ser Val Lys Gly Arg Leu Thr Ile Ser Arg Glu Asp Ser Lys Asn Thr
 65 70 75 80

 Leu Tyr Leu Gln Met Ser Ser Leu Lys Thr Glu Asp Leu Ala Val Tyr
 85 90 95

 Tyr Cys Ala Arg
 100

<210> 59
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 59
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
 20 25 30

 Tyr Met Ser Trp Val Arg Gln Ala Gln Gly Lys Gly Leu Glu Leu Val
 35 40 45

 Gly Leu Ile Arg Asn Lys Ala Asn Ser Tyr Thr Thr Glu Tyr Ala Ala
 50 55 60

 Ser Val Lys Gly Arg Leu Thr Ile Ser Arg Glu Asp Ser Lys Asn Thr
 65 70 75 80

 Leu Tyr Leu Gln Met Ser Ser Leu Lys Thr Glu Asp Leu Ala Val Tyr
 85 90 95

 Tyr Cys Ala Arg
 100

<210> 60
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 60
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95
 Ala Lys

<210> 61
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 61
 Glu Val Gln Leu Val Glu Ser Gly Gly Val Val Arg Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
 Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 62
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 62
 Glu Val Gln Leu Val Glu Ser Gly Gly Val Val Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
 20 25 30
 Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Leu Ile Ser Trp Asp Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95
 Ala Lys

<210> 63
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 63
 Gln Val Gln Leu Val Glu Ser Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Tyr
 20 25 30
 Tyr Met Ser Trp Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg

<210> 64
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 64
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60
 Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Thr Thr
 100

<210> 65
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 65
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Pro Ala Ser Gly Phe Thr Phe Ser Asn His
 20 25 30
 Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Ser Gly Asp Ser Gly Tyr Thr Asn Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn Asn Ser Pro Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Val Lys

<210> 66
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 66
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn His
 20 25 30
 Tyr Thr Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ser Ser Gly Asn Ser Gly Tyr Thr Asn Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Val Lys

<210> 67
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 67
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ser
 20 25 30
 Asp Met Asn Trp Val His Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Gly Val Ser Trp Asn Gly Ser Arg Thr His Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Arg Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Thr Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Val Arg

<210> 68
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 68
 Glu Val Gln Leu Val Glu Thr Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30
 Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 69
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 69
 Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Ser Asn
 20 25 30
 Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 70
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 70
 Glu Val Gln Leu Val His Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Gly Thr Gly Gly Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 71
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 71
 Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Gly Thr Gly Gly Thr Tyr Tyr Ala Asp Ser Val Lys
 50 55 60
 Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
 65 70 75 80
 Gln Met Asn Ser Leu Arg Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 72
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 72
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

 Ser Leu Arg Leu Ser Cys Ser Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Tyr Val
 35 40 45

 Ser Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

 Val Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

 Val Arg

<210> 73
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 73
 Thr Phe Ser Ser Tyr Ala Met His Trp Val Arg Gln Ala Pro Gly Lys
 1 5 10 15

 Gly Leu Glu Tyr Val Ser Ala Ile Ser Ser Asn Gly Gly Ser Thr Tyr
 20 25 30

 Tyr Ala Asp
 35

<210> 74
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 74
 Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

 Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr

65	70	75	80
----	----	----	----

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys	85	90	95
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Ala Arg

<210> 75

<211> 98

<212> PRT

<213> Homo sapiens

<400> 75

Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Arg	1	5	10	15
---	---	---	----	----

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr	20	25	30
---	----	----	----

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val	35	40	45
---	----	----	----

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val	50	55	60
---	----	----	----

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr	65	70	75	80
---	----	----	----	----

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys	85	90	95
---	----	----	----

Ala Arg

<210> 76

<211> 98

<212> PRT

<213> Homo sapiens

<400> 76

Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Arg	1	5	10	15
---	---	---	----	----

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr	20	25	30
---	----	----	----

Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val	35	40	45
---	----	----	----

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val	50	55	60
---	----	----	----

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr	65	70	75	80
---	----	----	----	----

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 77
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 77
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Lys

<210> 78
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 78
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Asp Met His Trp Val Arg Gln Ala Thr Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Ala Ile Gly Thr Ala Gly Asp Thr Tyr Tyr Pro Gly Ser Val Lys
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Glu Asn Ala Lys Asn Ser Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Arg Ala Gly Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 79
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 79
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Glu Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ser Tyr Ile Ser Ser Ser Gly Ser Thr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 80
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 80
 Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Arg
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Lys

<210> 81

<211> 98

<212> PRT

<213> Homo sapiens

<400> 81

Gln Val Gln Leu Val Glu Ser Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 82

<211> 98

<212> PRT

<213> Homo sapiens

<400> 82

Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45Ser Tyr Ile Ser Ser Ser Ser Thr Ile Tyr Tyr Ala Asp Ser Val
50 55 60Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 83
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 83
 Glu Asp Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Pro Ser Cys Ala Ala Ser Gly Phe Ala Phe Ser Ser Tyr
 20 25 30

Val Leu His Trp Val Arg Arg Ala Pro Gly Lys Gly Pro Glu Trp Val
 35 40 45

Ser Ala Ile Gly Thr Gly Gly Asp Thr Tyr Tyr Ala Asp Ser Val Met
 50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Ser Leu Tyr Leu
 65 70 75 80

Gln Met Asn Ser Leu Ile Ala Glu Asp Met Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 84
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 84
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Val Trp Val
 35 40 45

Ser Arg Ile Asn Ser Asp Gly Ser Ser Thr Thr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 85
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 85
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 86
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 86
 Gln Val Gln Leu Gln Gln Trp Gly Ala Gly Leu Leu Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Tyr Gly Gly Ser Phe Ser Gly Tyr
 20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

Gly Glu Ile Ile His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 87

<211> 97

<212> PRT

<213> Homo sapiens

<400> 87

Gln	Val	Gln	Leu	Gln	Gln	Trp	Gly	Ala	Gly	Leu	Leu	Lys	Pro	Ser	Glu
1				5						10					15

Thr	Leu	Ser	Leu	Thr	Cys	Ala	Val	Tyr	Gly	Gly	Ser	Phe	Ser	Gly	Tyr
								20	25					30	

Tyr	Trp	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
								35	40					45	

Gly	Glu	Ile	Asn	His	Ser	Gly	Ser	Thr	Asn	Tyr	Asn	Pro	Ser	Leu	Lys
									50	55				60	

Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu
								65	70					80	

Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala
								85	90					95	

Arg

<210> 88

<211> 97

<212> PRT

<213> Homo sapiens

<400> 88

Gln	Val	Gln	Leu	Gln	Gln	Trp	Gly	Ala	Gly	Leu	Leu	Lys	Pro	Ser	Glu
1				5						10					15

Thr	Leu	Ser	Leu	Thr	Cys	Ala	Val	Tyr	Gly	Gly	Ser	Val	Ser	Gly	Tyr
								20	25					30	

Tyr	Trp	Ser	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Ile
								35	40					45	

Gly	Tyr	Ile	Tyr	Tyr	Ser	Gly	Ser	Thr	Asn	Asn	Asn	Pro	Ser	Leu	Lys
								50	55					60	

Ser	Arg	Ala	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu
								65	70					80	

Asn	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Cys	Cys	Ala
								85	90					95	

Arg

<210> 89

<211> 99

<212> PRT

<213> Homo sapiens

<400> 89

Gln Leu Gln Leu Gln Glu Ser Gly Ser Gly Leu Val Lys Pro Ser Gln
1 5 10 15Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Gly
20 25 30Gly Tyr Ser Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45Trp Ile Gly Tyr Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60Leu Lys Ser Arg Val Thr Ile Ser Val Asp Arg Ser Lys Asn Gln Phe
65 70 75 80Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg

<210> 90

<211> 99

<212> PRT

<213> Homo sapiens

<400> 90

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
20 25 30Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95

Cys Ala Arg

<210> 91
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 91
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Gly
 20 25 30

Ser Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45

Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95

Cys Ala Arg

<210> 92
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 92
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
 20 25 30

Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45

Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
 50 55 60

Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80

Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 93

<211> 98

<212> PRT

<213> Homo sapiens

<400> 93

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ser Ile Ser Ser Gly
20 25 30Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
35 40 45Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
50 55 60Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65 70 75 80Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 94

<211> 98

<212> PRT

<213> Homo sapiens

<400> 94

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Asp
1 5 10 15Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Ser
20 25 30Asn Trp Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
35 40 45Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
50 55 60Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65 70 75 80Leu Lys Leu Ser Ser Val Thr Ala Val Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg

<210> 95
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 95
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Ser
 20 25 30

Asn Trp Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45

Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Ile Tyr Tyr Asn Pro Ser Leu
 50 55 60

Lys Ser Arg Val Thr Met Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
 65 70 75 80

Leu Lys Leu Ser Ser Val Thr Ala Val Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 96
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 96
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Val Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30

Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45

Ile Gly Glu Ile Tyr His Ser Gly Asn Pro Asn Tyr Asn Pro Ser Leu
 50 55 60

Lys Ser Arg Val Thr Ile Ser Ile Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80

Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 97

<211> 98

<212> PRT

<213> Homo sapiens

<400> 97

Gln	Val	Gln	Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Ser	Glu
1				5						10				15	

Thr	Leu	Ser	Leu	Thr	Cys	Val	Val	Ser	Gly	Gly	Ser	Ile	Ser	Ser	Ser
						20		25				30			

Asn	Trp	Trp	Ser	Trp	Val	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp
						35		40			45				

Ile	Gly	Glu	Ile	Tyr	His	Ser	Gly	Ser	Pro	Asn	Tyr	Asn	Pro	Ser	Leu
						50		55			60				

Lys	Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Lys	Ser	Lys	Asn	Gln	Phe	Ser
						65		70		75				80	

Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
						85			90				95		

Ala Arg

<210> 98

<211> 98

<212> PRT

<213> Homo sapiens

<400> 98

Gln	Val	Gln	Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Pro	Gly
1				5						10				15	

Thr	Leu	Ser	Leu	Thr	Cys	Ala	Val	Ser	Gly	Gly	Ser	Ile	Ser	Ser	Ser
						20		25				30			

Asn	Trp	Trp	Ser	Trp	Val	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu	Trp
						35		40			45				

Ile	Gly	Glu	Ile	Tyr	His	Ser	Gly	Ser	Thr	Asn	Tyr	Asn	Pro	Ser	Leu
						50		55			60				

Lys	Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Lys	Ser	Lys	Asn	Gln	Phe	Ser
						65		70		75				80	

Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Cys	Cys
						85			90				95		

Ala Arg

<210> 99
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 99
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gly
 1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30

Asn Trp Trp Ser Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
 35 40 45

Ile Gly Glu Ile Tyr His Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu
 50 55 60

Lys Ser Arg Val Thr Ile Ser Val Asp Lys Ser Lys Asn Gln Phe Ser
 65 70 75 80

Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 100
 <211> 99
 <212> PRT
 <213> Homo sapiens

<400> 100
 Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
 20 25 30

Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45

Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80

Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95

Cys Ala Arg

<210> 101

<211> 99

<212> PRT

<213> Homo sapiens

<400> 101

Gln	Leu	Gln	Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Ser	Glu
1				5				10				15			

Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val	Ser	Gly	Gly	Ser	Ile	Ser	Ser	Ser
				20			25				30				

Ser	Tyr	Tyr	Trp	Gly	Trp	Ile	Arg	Gln	Pro	Pro	Gly	Lys	Gly	Leu	Glu
				35			40				45				

Trp	Ile	Gly	Ser	Ile	Tyr	Tyr	Ser	Gly	Ser	Thr	Tyr	Tyr	Asn	Pro	Ser
	50				55					60					

Leu	Lys	Ser	Arg	Val	Thr	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	His	Phe
65					70			75				80			

Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr
				85			90				95				

Cys Ala Arg

<210> 102

<211> 97

<212> PRT

<213> Homo sapiens

<400> 102

Gln	Val	Gln	Leu	Gln	Glu	Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Ser	Glu
1				5				10				15			

Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val	Ser	Gly	Gly	Ser	Ile	Ser	Ser	Tyr
				20			25				30				

Tyr	Trp	Ser	Trp	Ile	Arg	Gln	Pro	Ala	Gly	Lys	Gly	Leu	Glu	Trp	Ile
	35				40					45					

Gly	Arg	Ile	Tyr	Thr	Ser	Gly	Ser	Thr	Asn	Tyr	Asn	Pro	Ser	Leu	Lys
50					55				60						

Ser	Arg	Val	Thr	Asn	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe	Ser	Leu
65					70			75			80				

Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala
				85			90				95				

Arg

<210> 103
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 103
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
 20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
 65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 104
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 104
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Tyr
 20 25 30

Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
 35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
 50 55 60

Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Met Gln Phe Ser Leu
 65 70 75 80

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
 85 90 95

Arg

<210> 105

<211> 97

<212> PRT

<213> Homo sapiens

<400> 105

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Asp
1 5 10 15Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Tyr
20 25 30Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser Leu Lys
50 55 60Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu
65 70 75 80Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

Arg

<210> 106

<211> 98

<212> PRT

<213> Homo sapiens

<400> 106

Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
20 25 30Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
35 40 45Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr Ser Pro Ser Phe
50 55 60Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65 70 75 80Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95

Ala Arg

<210> 107

<211> 98

<212> PRT

<213> Homo sapiens

<400> 107

Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Glu
1				5					10					15	

Ser	Leu	Lys	Ile	Ser	Cys	Lys	Gly	Ser	Gly	Tyr	Ser	Phe	Thr	Ser	Tyr
						20		25					30		

Trp	Ile	Gly	Trp	Val	Arg	Gln	Met	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
						35		40				45			

Gly	Ile	Ile	Tyr	Pro	Gly	Asp	Ser	Asp	Thr	Arg	Tyr	Ser	Pro	Ser	Phe
						50		55			60				

Gln	Gly	Gln	Val	Thr	Ile	Ser	Ala	Asp	Lys	Pro	Ile	Ser	Thr	Ala	Tyr
65					70				75					80	

Leu	Gln	Trp	Ser	Ser	Leu	Lys	Ala	Ser	Asp	Thr	Ala	Met	Tyr	Tyr	Cys
					85				90				95		

Ala Arg

<210> 108

<211> 98

<212> PRT

<213> Homo sapiens

<400> 108

Glu	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Glu
1				5					10				15		

Ser	Leu	Lys	Ile	Ser	Cys	Lys	Gly	Ser	Gly	Tyr	Ser	Phe	Thr	Ser	Tyr
						20		25					30		

Trp	Ile	Gly	Trp	Val	Arg	Gln	Met	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
						35		40				45			

Gly	Ile	Ile	Tyr	Pro	Gly	Asp	Ser	Asp	Thr	Arg	Tyr	Ser	Pro	Ser	Phe
						50		55			60				

Gln	Gly	Gln	Val	Thr	Ile	Ser	Ala	Asp	Lys	Ser	Ile	Ser	Thr	Ala	Tyr
65					70				75					80	

Leu	Gln	Trp	Ser	Ser	Leu	Lys	Ala	Ser	Asp	Thr	Ala	Met	Tyr	Tyr	Cys
					85				90				95		

Ala Arg

<210> 109
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 109
 Glu Val Gln Leu Leu Gln Ser Ala Ala Glu Val Lys Arg Pro Gly Glu
 1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Thr Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30

Trp Ile His Trp Val Arg Gln Met Pro Gly Lys Glu Leu Glu Trp Met
 35 40 45

Gly Ser Ile Tyr Pro Gly Asn Ser Asp Thr Arg Tyr Ser Pro Ser Phe
 50 55 60

Gln Gly His Val Thr Ile Ser Ala Asp Ser Ser Ser Ser Thr Ala Tyr
 65 70 75 80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Ala Ala Met Tyr Tyr Cys
 85 90 95

Val Arg

<210> 110
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 110
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30

Trp Ile Ser Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45

Gly Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe
 50 55 60

Gln Gly His Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 111
 <211> 98
 <212> PRT
 <213> Homo sapiens

<400> 111
 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1 5 10 15

Ser Leu Arg Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
 20 25 30

Trp Ile Ser Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
 35 40 45

Gly Arg Ile Asp Pro Ser Asp Ser Tyr Thr Asn Tyr Ser Pro Ser Phe
 50 55 60

Gln Gly His Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
 65 70 75 80

Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
 85 90 95

Ala Arg

<210> 112
 <211> 101
 <212> PRT
 <213> Homo sapiens

<400> 112
 Gln Val Gln Leu Gln Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15

Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn
 20 25 30

Ser Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu
 35 40 45

Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Asn Asp Tyr Ala
 50 55 60

Val Ser Val Lys Ser Arg Ile Thr Ile Asn Pro Asp Thr Ser Lys Asn
 65 70 75 80

Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val
 85 90 95

Tyr Tyr Cys Ala Arg
 100

<210> 113
 <211> 87
 <212> PRT
 <213> Homo sapiens

<400> 113
 Arg Lys Leu Gly Ala Ser Val Lys Val Ser Arg Lys Ala Ser Ser Tyr
 1 5 10 15

Thr Phe Thr Ser Tyr Asp Ile His Cys Val Arg Gln Ala Pro Gly Lys
 20 25 30

Gly Leu Lys Gly Trp Met Gly Gly Ile Tyr Ser Gly Asn Gly Lys Thr
 35 40 45

Gly Tyr Ala Gln Lys Phe Gln Arg Val Thr Met Thr Arg Asp Met Ser
 50 55 60

Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Gln Arg Ser Glu Asp Ile
 65 70 75 80

Asp Val Tyr Tyr Cys Ala Arg
 85

<210> 114
 <211> 5
 <212> PRT
 <213> Homo sapiens

<400> 114
 Asp Tyr Gly Met Ser
 1 5

<210> 115
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 115
 Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser Val Lys
 1 5 10 15

Gly

<210> 116
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 116
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Arg
 1 5 10

<210> 117
<211> 11
<212> PRT
<213> Homo sapiens

<400> 117
Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
1 5 10

<210> 118
<211> 11
<212> PRT
<213> Homo sapiens

<400> 118
Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
1 5 10

<210> 119
<211> 8
<212> PRT
<213> Homo sapiens

<400> 119
Gly Lys Gly Leu Glu Trp Val Ser
1 5

<210> 120
<211> 6
<212> PRT
<213> Homo sapiens

<400> 120
Trp Val Arg Gln Ala Pro
1 5

<210> 121
<211> 11
<212> PRT
<213> Homo sapiens

<400> 121
Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp
1 5 10

<210> 122
<211> 7
<212> PRT
<213> Homo sapiens

<400> 122
Ala Val Tyr Tyr Cys Ala Arg
1 5

<210> 123
<211> 20
<212> PRT
<213> Homo sapiens

<400> 123
Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 124
<211> 15
<212> PRT
<213> Homo sapiens

<400> 124
Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15

<210> 125
<211> 9
<212> PRT
<213> Homo sapiens

<400> 125
Asn Ser Arg Asp Ser Ser Gly Asn His
1 5

<210> 126
<211> 8
<212> PRT
<213> Homo sapiens

<400> 126
Ala Ala Trp Asp Asp Ser Leu Val
1 5

<210> 127
<211> 8
<212> PRT
<213> Homo sapiens

<400> 127
Met Gln Ser Ile Gln Leu Pro Thr
1 5

<210> 128
<211> 9
<212> PRT
<213> Homo sapiens

<400> 128
Met Gln Ser Ile Gln Leu Pro Ala Thr
1 5

<210> 129
<211> 10
<212> PRT
<213> Homo sapiens

<400> 129
Ala Ala Trp Asp Asp Gly Leu Ser Leu Val
1 5 10

<210> 130
<211> 10
<212> PRT
<213> Homo sapiens

<400> 130
Ala Ala Trp Asp Asp Ser Leu Ser Gly Val
1 5 10

<210> 131
<211> 11
<212> PRT
<213> Homo sapiens

<400> 131
Asn Ser Arg Asp Ser Ser Gly Ser Val Arg Val
1 5 10

<210> 132
<211> 9
<212> PRT
<213> Homo sapiens

<400> 132
Leu Leu Tyr Tyr Gly Gly Ala Tyr Val
1 5

<210> 133
<211> 11
<212> PRT
<213> Homo sapiens

<400> 133
Asn Ser Arg Asp Ser Ser Gly Val Ser Arg Val
1 5 10

<210> 134
<211> 10
<212> PRT
<213> Homo sapiens

<400> 134
Ala Ala Trp Asp Asp Ser Leu Pro Tyr Val
1 5 10

<210> 135
<211> 12
<212> PRT
<213> Homo sapiens

<400> 135
Ala Ala Trp Asp Asp Ser Leu Cys Pro Glu Phe Val
1 5 10

<210> 136
<211> 11
<212> PRT
<213> Homo sapiens

<400> 136
Ala Ala Trp Asp Asp Ser Leu Ala Trp Phe Val
1 5 10

<210> 137
<211> 10
<212> PRT
<213> Homo sapiens

<400> 137
Leu Ala Trp Asp Thr Ser Pro Arg Trp Val
1 5 10

<210> 138
<211> 10
<212> PRT
<213> Homo sapiens

<400> 138
Thr Ala Trp Asp Asp Ser Leu Ala Val Val
1 5 10

<210> 139
<211> 11
<212> PRT
<213> Homo sapiens

<400> 139
Asn Ser Arg Asp Ser Ser Gly Asn His Arg Val
1 5 10

<210> 140
<211> 9
<212> PRT
<213> Homo sapiens

<400> 140
Gln Gln Tyr Gly Ser Ser Gln Arg Thr
1 5

<210> 141
<211> 10
<212> PRT
<213> Homo sapiens

<400> 141
Ala Ala Trp Asp Asp Ser Leu Arg Leu Val
1 5 10

<210> 142
<211> 9
<212> PRT
<213> Homo sapiens

<400> 142
Met Gln Gly Thr His Trp Arg Pro Thr
1 5

<210> 143
<211> 9
<212> PRT
<213> Homo sapiens

<400> 143
Met Gln Gly Lys His Trp Pro Leu Thr
1 5

<210> 144
<211> 9
<212> PRT
<213> Homo sapiens

<400> 144
Ala Ala Trp Asp Asp Ser Leu Gly Phe
1 5

<210> 145
<211> 9
<212> PRT
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Ala Ala Trp Asp Asp Ser Leu Gly Phe Val
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Val Leu Tyr Met Gly Ser Gly Val Tyr Val
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1 5 10

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1 5 10

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Asn	Ser	Arg	Asp	Ser	Ser	Gly	Phe	Gln	Leu	Val
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<400> 203

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Ala	Gln	Pro	Ala	Met	Ala	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly
							20		25			30			

Val	Val	Arg	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly
						35		40			45				

Phe	Thr	Phe	Asp	Asp	Tyr	Gly	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly
						50		55			60				

Lys	Gly	Leu	Glu	Trp	Val	Ser	Gly	Ile	Asn	Trp	Asn	Gly	Gly	Ser	Thr
						65		70			75		80		

Gly	Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn
						85		90			95				

Ala	Lys	Asn	Ser	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp
						100		105			110				

Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Leu	Thr	His	Pro	Tyr	Phe	Trp	Gly
						115		120			125				

Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Arg	Gly	Gly	Gly	Ser	Gly	Gly
						130		135			140			

Gly	Gly	Ser	Gly	Gly	Gly	Ser	Ser	Glu	Leu	Thr	Gln	Asp	Pro	Ala
						145		150			155		160	

Val	Ser	Val	Ala	Leu	Gly	Gln	Thr	Val	Arg	Ile	Thr	Cys	Gln	Gly	Asp
						165		170			175				

Ser	Leu	Arg	Ser	Tyr	Tyr	Ala	Ser	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln
						180		185			190				

Ala	Pro	Val	Leu	Val	Ile	Tyr	Gly	Lys	Asn	Asn	Arg	Pro	Ser	Gly	Ile
						195		200			205				

Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr
 210 215 220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
 225 230 235 240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Thr Lys Leu
 245 250 255

Thr Val Leu Gly Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp
 260 265 270

Leu Asn Gly Ala Ala
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Met Lys Tyr Leu Leu Pro Thr Ala Ala Gly Leu Leu Leu Ala
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Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu Ser Gly Gly
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Val Val Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 35 40 45

Phe Thr Phe Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly
 50 55 60

Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr
 65 70 75 80

Gly Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 85 90 95

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 100 105 110

Thr Ala Val Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly
 115 120 125

Gln Gly Thr Leu Val Thr Val Ser Arg Gly Gly Ser Gly Gly
 130 135 140

Gly Gly Ser Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala
 145 150 155 160

Val Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp
 165 170 175

Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln
 180 185 190

Ala Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile
 195 200 205

Pro Asp Arg Phe Ser Gly Ser Ser Gly Asn Thr Ala Ser Leu Thr
 210 215 220

Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser
 225 230 235 240

Arg Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Gly Thr Lys Leu
 245 250 255

Thr Val Leu Gly Ala Ala Ala Lys Ala Lys
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Met	Ala	Trp	Ala	Leu	Leu	Leu	Leu	Thr	Leu	Leu	Thr	Gln	Asp	Thr	Gly
1	5							10			15				

tcc	tgg	gcc	gat	atc	cag	ctg	gtg	gag	tct	ggg	gga	ggt	gtg	gta	cg	96
Ser	Trp	Ala	Asp	Ile	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Arg	
20	25								30							

cct	ggg	ggg	tcc	ctg	aga	ctc	tcc	tgt	gca	gcc	tct	gga	ttc	acc	ttt	144
Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	
35	40							45								

gat	gat	tat	ggc	atg	agc	tgg	gtc	cgc	caa	gct	cca	ggg	aag	ggg	ctg	192
Asp	Asp	Tyr	Gly	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	
50	55							60								

gag	tgg	gtc	tct	ggt	att	aat	tgg	aat	ggt	agc	aca	ggt	tat	gca	240
Glu	Trp	Val	Ser	Gly	Ile	Asn	Trp	Asn	Gly	Gly	Ser	Thr	Gly	Tyr	Ala
65	70							75			80				

gac	tct	gtg	aag	ggc	cga	ttc	acc	atc	tct	aga	gac	aac	gcc	aag	aac	288
Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala	Lys	Asn	
85								90			95					

tcc	ctg	tat	ctg	caa	atg	aac	agt	ctg	aga	gcc	gag	gac	acg	gcc	gtg	336
Ser	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	
100								105			110					

tat	tac	tgt	gca	aga	atg	agg	gct	cct	gtg	att	tgg	ggc	caa	ggt	acc	384
Tyr	Tyr	Cys	Ala	Arg	Met	Arg	Ala	Pro	Val	Ile	Trp	Gly	Gln	Gly	Thr	
115								120			125					

ctg gtc acc gtc tcg agt gct tcc acc aag ggc cca tcg gtc ttc ccc	432
Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro	
130 135 140	
ctg gca ccc tcc tcc aag agc acc tct ggg ggc aca gcg gcc ctg ggc	480
Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly	
145 150 155 160	
tgc ctg gtc aag gac tac ttc ccc gaa ccg gtg acg gtg tcg tgg aac	528
Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn	
165 170 175	
tca ggc gcc ctg acc agc ggc gtg cac acc ttc ccg gct gtc cta cag	576
Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln	
180 185 190	
tcc tca gga ctc tac tcc ctc agc agc gtg gtg acc gtg ccc tcc agc	624
Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser	
195 200 205	
agc ttg ggc acc cag acc tac atc tgc aac gtg aat cac aag ccc agc	672
Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser	
210 215 220	
aac acc aag gtg gac aag aga gtt gag ccc aaa tct tgt gac aaa act	720
Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr	
225 230 235 240	
cac aca tgc cca ccg tgc cca gca cct gaa ctc ctg ggg gga ctg tca	768
His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Leu Ser	
245 250 255	
gtc ttc ctc ttc ccc cca aaa ccc aag gac acc ctc atg atc tcc cgg	816
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg	
260 265 270	
acc cct gag gtc aca tgc gtg gtg gac gtg agc cac gaa gac cct	864
Thr Pro Glu Val Thr Cys Val Val Asp Val Ser His Glu Asp Pro	
275 280 285	
gag gtc aag ttc aac tgg tac gtg gac ggc gtg gag gtg cat aat gcc	912
Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala	
290 295 300	
aag aca aag ccg cgg gag gag cag tac aac agc acg tac cgt gtg gtc	960
Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val	
305 310 315 320	
agc gtc ctc acc gtc ctg cac cag gac tgg ctg aat ggc aag gag tac	1008
Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr	
325 330 335	
aag tgc aag gtc tcc aac aaa gcc ctc cca gcc ccc atc gag aaa acc	1056
Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr	
340 345 350	

atc tcc aaa gcc aaa ggg cag ccc cga gaa cca cag gtg tac acc ctg	1104
Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu	
355 360 365	
ccc cca tcc cgg gag gag atg acc aag aac cag gtc agc ctg acc tgc	1152
Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys	
370 375 380	
ctg gtc aaa ggc ttc tat ccc agc gac atc gcc gtg gag tgg gag agc	1200
Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser	
385 390 395 400	
aat ggg cag ccg gag aac aac tac aag acc acg tct ccc gtg ctg gac	1248
Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Ser Pro Val Leu Asp	
405 410 415	
tcc gac ggc tcc ttc ctc tat agc aag ctc acc gtg cac aag agc	1296
Ser Asp Gly Ser Phe Leu Tyr Ser Lys Leu Thr Val His Lys Ser	
420 425 430	
agg tgg cag cag ggg aac gtc ttc tca tgc tcc gtg atg cat gag gct	1344
Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala	
435 440 445	
ctg cac aac cac tac acg cag aag agc ctc tcc ctg tct ctg ggt aaa	1392
Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys	
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tga	1395
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Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe	
35 40 45	
Asp Asp Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Leu	
50 55 60	
Glu Trp Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala	
65 70 75 80	
Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn	
85 90 95	
Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val	
100 105 110	

Tyr Tyr Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr
 115 120 125

Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
 130 135 140

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
 145 150 155 160

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 165 170 175

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
 180 185 190

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
 195 200 205

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 210 215 220

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
 225 230 235 240

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Leu Ser
 245 250 255

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 260 265 270

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 275 280 285

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 290 295 300

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
 305 310 315 320

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 325 330 335

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 340 345 350

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 355 360 365

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
 370 375 380

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 385 390 395 400

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Ser Pro Val Leu Asp
 405 410 415

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val His Lys Ser
 420 425 430

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
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 Ser Trp Ala Asp Ala Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala
 20 25 30

ttg gga cag aca gtc agg atc aca tgc caa gga cac agc ctc aga agc 144
 Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly His Ser Leu Arg Ser
 35 40 45

tat tat gca agc tgg tac cag cag aag cca gga cag gcc cct gta ctt 192
 Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu
 50 55 60

gtc atc tat ggt aaa aac aac cgg ccc tca ggg atc cca gac cga ttc 240
 Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe
 65 70 75 80

tct ggc tcc agc tca gga aac aca gct tcc ttg acc atc act ggg gct 288
 Ser Gly Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala
 85 90 95

cag gcg gaa gat gag gct gac tat tac tgt aac tcc cgg gac agc agt 336
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser
 100 105 110

ggt aac cat gtg gta ttc ggc gga ggg acc aag ctg acc gtc cta ggt 384
 Gly Asn His Val Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly
 115 120 125

cag ccc aag gct gcc ccc tcg gtc act ctg ttc ccg ccc tcc tct gag 432
 Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu
 130 135 140

gag ctt caa gcc aac aag gcc aca ctg gtg tgt ctc ata agt gac ttc	480
Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe	
145 150 155 160	
tac ccg gga gcc gtg aca gtg gcc tgg aag gca gat agc agc ccc gtc	528
Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val	
165 170 175	
aag gcg gga gtg gag acc acc aca ccc tcc aaa caa agc aac aac aag	576
Lys Ala Gly Val Glu Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys	
180 185 190	
tac gcg gcc agc agc tac ctg agc ctg acg cct gag cag tgg aag tcc	624
Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser	
195 200 205	
cac aaa agc tac agc tgc cag gtc acg cat gaa ggg agc acc gtg gag	672
His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu	
210 215 220	
aag aca gtg gcc cct aca gaa tgt tca tga	702
Lys Thr Val Ala Pro Thr Glu Cys Ser	
225 230	
<210> 208	
<211> 233	
<212> PRT	
<213> Homo sapiens	
<400> 208	
Met Ala Trp Ala Leu Leu Leu Leu Thr Leu Leu Thr Gln Asp Thr Gly	
1 5 10 15	
Ser Trp Ala Asp Ala Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala	
20 25 30	
Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly His Ser Leu Arg Ser	
35 40 45	
Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu	
50 55 60	
Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe	
65 70 75 80	
Ser Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala	
85 90 95	
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser	
100 105 110	
Gly Asn His Val Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly	
115 120 125	
Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser Ser Glu	
130 135 140	

Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
 145 150 155 160
 Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
 165 170 175
 Lys Ala Gly Val Glu Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
 180 185 190
 Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
 195 200 205
 His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu
 210 215 220
 Lys Thr Val Ala Pro Thr Glu Cys Ser
 225 230

<210> 209
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 209
 Glu Val Gln Leu Val Glu Ser Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Tyr Ala Lys Thr Leu Met Arg Gln Tyr Ser Leu Trp Gly Gln
 100 105 110
 Gly Thr Leu Val Thr Val Ser Arg Gly Gly Gly Ser Gly Gly Gly
 115 120 125
 Gly Ser Gly Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val
 130 135 140
 Ser Val Ala Leu Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser
 145 150 155 160
 Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala
 165 170 175

Pro Val Leu Val Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro
 180 185 190

Asp Arg Phe Ser Gly Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile
 195 200 205

Thr Gly Ala Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg
 210 215 220

Asp Ser Ser Gly Asn His Val Val Phe Gly Gly Thr Lys Leu Thr
 225 230 235 240

Val Leu Gly Ala Ala Ala Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
 245 250 255

Asn Gly Ala Ala
 260

<210> 210

<211> 831

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (2)...(802)

<220>

<221> modified_base

<222> (803)...(806)

<223> unknown nucleotide

<400> 210

a tta tta ctc gcg gcc cag ccg gcc atg gcc gag gtg cag ctg gtg gag 49
 Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu
 1 5 10 15

tct ggg gga ggc ttg gta cag cct ggg ggg tcc ctg aga ctc tcc tgt 97
 Ser Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 20 25 30

gca gcc tct gga ttc acc ttt agc agc tat gcc atg agc tgg gtc cgc 145
 Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp Val Arg
 35 40 45

cag gct cca ggg aag ggg ctg gag tgg gtc tca gct att agt ggt agt 193
 Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Ser Gly Ser
 50 55 60

ggt ggt agc aca tac tac gca gac tcc gtg aag ggc cgg ttc acc atc 241
 Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile
 65 70 75 80

tcc aga gac aat tcc aag aac acg ctg tat ctg caa atg aac agc ctg 289
 Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu
 85 90 95

aga gcc gag gac acg gcc gtg tat tac tgt gca aga acg ggg cag agt	337
Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Thr Gly Gln Ser	
100 105 110	
att aag cgt agt tgg ggc caa ggt acc ctg gtc acc gtg tcg aga ggt	385
Ile Lys Arg Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Arg Gly	
115 120 125	
gga ggc ggt tca ggc gga ggt ggc tct ggc ggt ggc gga tcg tct gag	433
Gly Gly Ser Gly Gly Ser Gly Gly Ser Gly Gly Ser Ser Glu	
130 135 140	
ctg act cag gac cct gct gtg tct gtg gcc ttg gga cag aca gtc agg	481
Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val Arg	
145 150 155 160	
atc aca tgc caa gga gac agc ctc aga agc tat tat gca agc tgg tac	529
Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr	
165 170 175	
cag cag aag cca gga cag gcc cct gta ctt gtc atc tat ggt aaa aac	577
Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly Lys Asn	
180 185 190	
aac cgg ccc tca ggg atc cca gac cga ttc tct ggc tcc agc tca gga	625
Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Gly	
195 200 205	
aac aca gct tcc ttg acc atc act ggg gct cag gcg gaa gat gag gct	673
Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala	
210 215 220	
gac tat tac tgt aac tcc cgg gac agc agt ggt aac cat gtg gta ttc	721
Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val Val Phe	
225 230 235 240	
ggc gga ggg acc aag ctg acc gtc cta ggt gcg gcc gca gaa caa aaa	769
Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Glu Gln Lys	
245 250 255	
ctc atc tca gaa gag gat ctg aat ggg gcc gca nnnnactgtt gaattttta	822
Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala	
260 265	
agttAACCT	831

<210> 211
<211> 256
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Y1-Biotag sequence

<400> 211
 Met Glu Val Gln Leu Val Glu Ser Gly Gly Val Val Arg Pro Gly
 1 5 10 15

 Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp
 20 25 30

 Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 35 40 45

 Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser
 50 55 60

 Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu
 65 70 75 80

 Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
 85 90 95

 Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr Leu Val
 100 105 110

 Thr Val Ser Arg Gly Gly Ser Gly Gly Ser Gly Gly
 115 120 125

 Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu
 130 135 140

 Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr
 145 150 155 160

 Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val
 165 170 175

 Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
 180 185 190

 Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln
 195 200 205

 Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly
 210 215 220

 Asn Asn Val Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
 225 230 235 240

 Gly Gly Leu Asn Asp Ile Phe Glu Ala Gln Lys Ile Glu Trp His Glu
 245 250 255

<210> 212
 <211> 246
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 Y1-cys-kak scFv Sequence

<400> 212
 Met Glu Val Gln Leu Val Glu Ser Gly Gly Val Val Arg Pro Gly
 1 5 10 15

Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp
 20 25 30

Tyr Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 35 40 45

Val Ser Gly Ile Asn Trp Asn Gly Gly Ser Thr Gly Tyr Ala Asp Ser
 50 55 60

Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu
 65 70 75 80

Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr
 85 90 95

Cys Ala Arg Met Arg Ala Pro Val Ile Trp Gly Gln Gly Thr Leu Val
 100 105 110

Thr Val Ser Arg Gly Gly Ser Gly Gly Ser Gly Gly
 115 120 125

Gly Gly Ser Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu
 130 135 140

Gly Gln Thr Val Arg Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr
 145 150 155 160

Tyr Ala Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val
 165 170 175

Ile Tyr Gly Lys Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser
 180 185 190

Gly Ser Ser Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln
 195 200 205

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly
 210 215 220

Asn His Val Val Phe Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
 225 230 235 240

Gly Gly Cys Lys Ala Lys
 245

<210> 213
 <211> 267
 <212> PRT
 <213> Homo sapiens

<400> 213
 Leu Leu Leu Ala Ala Gln Pro Ala Met Ala Glu Val Gln Leu Val Glu
 1 5 10 15
 Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 20 25 30
 Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Ala Met Ser Trp Val Arg
 35 40 45
 Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Ala Ile Ser Gly Ser
 50 55 60
 Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile
 65 70 75 80
 Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu
 85 90 95
 Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Thr Gly Gln Ser
 100 105 110
 Ile Lys Arg Ser Trp Gly Gln Gly Thr Leu Val Thr Val Ser Arg Gly
 115 120 125
 Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Ser Glu
 130 135 140
 Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr Val Arg
 145 150 155 160
 Ile Thr Cys Gln Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser Trp Tyr
 165 170 175
 Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly Lys Asn
 180 185 190
 Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser Ser Gly
 195 200 205
 Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp Glu Ala
 210 215 220
 Asp Tyr Tyr Cys Asn Ser Arg Asp Ser Ser Gly Asn His Val Val Phe
 225 230 235 240
 Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Ala Ala Ala Glu Gln Lys
 245 250 255
 Leu Ile Ser Glu Glu Asp Leu Asn Gly Ala Ala
 260 265

<210> 214

<211> 7

<212> PRT

<213> Homo sapiens

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<400> 214
Tyr Glu Tyr Leu Asp Tyr Asp
1 5

<210> 215
<211> 13
<212> PRT
<213> Homo sapiens

<400> 215
Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp Thr Glu
1 5 10

<210> 216
<211> 43
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: artifical
      formula sequence

<220>
<221> REPEAT
<222> (1)..(2)
<223> This region may encompass 0 to 2 residues

<220>
<221> REPEAT
<222> (3)..(4)
<223> Any amino acid except Glycine, Glutamate, Aspartate
      or Tyrosine and this region may encompass 0 to 2 residues

<220>
<221> REPEAT
<222> (5)..(7)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (8)..(10)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (11)..(13)
<223> This region may encompass 1 to 3 residues

<220>
<221> REPEAT
<222> (14)..(5)
<223> Any amino acid except Glycine, Glutamate, Aspartate
      or Tyrosine and this region may encompass 0 to 2 residues
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```

<220>
<221> REPEAT
<222> (16)..(18)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (19)..(21)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (22)..(24)
<223> This region may encompass 1 to 3 residues

<220>
<221> REPEAT
<222> (25)..(26)
<223> Any amino acid except Glycine, Glutamate, Aspartate
      or Tyrosine and this region may encompass 0 to 2 residues

<220>
<221> REPEAT
<222> (27)..(29)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (30)..(32)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (33)..(35)
<223> This region may encompass 1 to 3 residues

<220>
<221> REPEAT
<222> (36)..(38)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (39)..(41)
<223> This region may encompass 0 to 3 residues

<220>
<221> REPEAT
<222> (42)..(43)
<223> Any amino acid except Glycine, Glutamate, Aspartate
      or Tyrosine and this region may encompass 0 to 2 residues

<400> 216
Gly Gly Xaa Xaa Glu Glu Asp Asp Asp Tyr Tyr Tyr Xaa Xaa Glu
      1           5           10          15

Glu Glu Asp Asp Asp Tyr Tyr Xaa Xaa Glu Glu Asp Asp Asp
      20          25          30

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Tyr Tyr Tyr Asp Asp Asp Glu Glu Glu Xaa Xaa
 35 40

<210> 217
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 217
 Glu Cys Pro Glu Gly Tyr Ile Leu Asp Asp Gly Phe Ile Cys Thr Asp
 1 5 10 15

Ile Asp Glu

<210> 218
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 218
 Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp Thr
 1 5 10 15

Glu Gly Asp

<210> 219
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 219
 Gly Glu Glu Asp Asp Asp Tyr Leu Asp Leu Glu Glu Asp Asp Asp Tyr
 1 5 10 15

Ile Asp Ile Val Asp
 20

<210> 220
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 220
 Val Arg Pro Glu His Pro Ala Glu Thr Glu Tyr Asp Ser Leu Tyr Pro
 1 5 10 15

Glu Asp Asp Leu
 20

<210> 221

<211> 13

<212> PRT

<213> Homo sapiens

<400> 221

Pro Pro Met Glu Glu Asp Tyr Pro Gln Phe Gly Ser Pro
1 5 10

<210> 222

<211> 13

<212> PRT

<213> Homo sapiens

<400> 222

Arg Ile Ser Asp Arg Asp Tyr Met Gly Trp Met Asp Phe
1 5 10

<210> 223

<211> 11

<212> PRT

<213> Homo sapiens

<400> 223

Cys His Cys Ser Thr Cys Tyr Tyr His Lys Ser
1 5 10

<210> 224

<211> 18

<212> PRT

<213> Homo sapiens

<400> 224

Met Glu Ala Asn Glu Asp Tyr Glu Asp Tyr Glu Tyr Asp Glu Leu Pro
1 5 10 15

Ala Lys

<210> 225

<211> 17

<212> PRT

<213> Homo sapiens

<400> 225

Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
1 5 10 15

Glu

<210> 226

<211> 16

<212> PRT

<213> Homo sapiens

<400> 226

Gly Asp Tyr Tyr Glu Asp Ser Tyr Glu Asp Ile Ser Ala Tyr Leu Leu
1 5 10 15

<210> 227

<211> 9

<212> PRT

<213> Homo sapiens

<400> 227

Gly Tyr Tyr Asp Tyr Asp Phe Pro Leu
1 5

<210> 228

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 228

tttcatatgg agctgactca ggaccctgct

30

<210> 229

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
Primer

<400> 229

tttgaattcc tattttgctt ttgcggc

27

<210> 230

<211> 18

<212> PRT

<213> Homo sapiens

<400> 230

Arg Glu Glu Gly Arg Gln His Phe Phe Leu Leu Glu Gly Arg Ser Ser
1 5 10 15

Tyr Ser

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<210> 231
<211> 18
<212> PRT
<213> Homo sapiens

<400> 231
Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp
1 5 10 15

Thr Glu

```

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<210> 232
<211> 18
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (9)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (11)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (12)
<223> Sulfated tyrosine

<400> 232
Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp
1 5 10 15

Thr Glu

```

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<210> 233
<211> 13
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (4)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (6)
<223> Sulfated tyrosine

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<220>
<221> MOD_RES
<222> (7)
<223> Sulfated tyrosine

<400> 233
Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp Thr Glu
1 5 10

<210> 234
<211> 13
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (9)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (11)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (12)
<223> Sulfated tyrosine

<400> 234
Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro
1 5 10

<210> 235
<211> 15
<212> PRT
<213> Homo sapiens

<400> 235
Glu His Pro Ala Glu Thr Glu Tyr Asp Ser Leu Tyr Pro Glu Asp
1 5 10 15

<210> 236
<211> 20
<212> PRT
<213> Homo sapiens

<400> 236
Val Arg Pro Glu His Pro Ala Glu Thr Glu Tyr Glu Ser Leu Tyr Pro
1 5 10 15

Glu Asp Asp Leu
20

```

```

<210> 237
<211> 20
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (11)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (15)
<223> Sulfated tyrosine

<400> 237
Val Arg Pro Glu His Pro Ala Glu Thr Glu Tyr Glu Ser Leu Tyr Pro
 1           5           10          15

Glu Asp Asp Leu
 20

<210> 238
<211> 17
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (5)
<223> Sulfated tyrosine

<400> 238
Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
 1           5           10          15

Glu

<210> 239
<211> 17
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (5)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (7)
<223> Sulfated tyrosine

```

```
<400> 239
Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
1 5 10 15
```

Glu

```
<210> 240
<211> 17
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> MOD_RES
<222> (5)
<223> Sulfated tyrosine
```

```
<220>
<221> MOD_RES
<222> (10)
<223> Sulfated tyrosine
```

```
<400> 240
Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
1 5 10 15
```

Glu

```
<210> 241
<211> 17
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> MOD_RES
<222> (7)
<223> Sulfated tyrosine
```

```
<400> 241
Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
1 5 10 15
```

Glu

```
<210> 242
<211> 17
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> MOD_RES
<222> (7)
<223> Sulfated tyrosine
```

```

<220>
<221> MOD_RES
<222> (10)
<223> Sulfated tyrosine

<400> 242
Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
    1           5           10          15

Glu

<210> 243
<211> 17
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (10)
<223> Sulfated tyrosine

<400> 243
Gln Ala Thr Glu Tyr Glu Tyr Leu Asp Tyr Asp Phe Leu Pro Glu Thr
    1           5           10          15

Glu

<210> 244
<211> 18
<212> PRT
<213> Homo sapiens

<220>
<221> MOD_RES
<222> (9)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (11)
<223> Sulfated tyrosine

<220>
<221> MOD_RES
<222> (12)
<223> Sulfated tyrosine

<400> 244
Gly Asp Glu Gly Asp Thr Asp Leu Tyr Asp Tyr Tyr Pro Glu Glu Asp
    1           5           10          15

Thr Glu

```

<210> 245
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide tag

<400> 245
His His His His His His
1 5

<210> 246
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide tag

<400> 246
His Thr Thr Pro His His
1 5

<210> 247
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic GlySer linker

<400> 247
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ser
1 5 10 15

<210> 248
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic GlySer linker

<400> 248
Gly Gly Gly Gly Ser
1 5

```

<210> 249
<211> 74
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 249
tcgacacct caccatggcc tgggctctgc tgctcctcac ctcctcact caggacacag 60
      ggtcctggc cgat 74

<210> 250
<211> 91
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 250
gatcgatgc accagctgga tatcgccca ggaccctgtg tcctgagtga ggagggtgag 60
      gagcagcaga gcccaggcca tggatgatgag g 91

<210> 251
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 251
tttatatcc agctggtgga gtctggggga 30

<210> 252
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      Oligonucleotide

<400> 252
gctgacctag gacggtcagc ttgg 25

<210> 253
<211> 26
<212> DNA
<213> Artificial Sequence

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<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 253
gggatatcca gctgswggag tcgggc

26

<210> 254
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 254
ggactcgaga cggtgaccag ggtaccttg

29

<210> 255
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 255
ccgtcctagg tcagcccaag gctgc

25

<210> 256
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
Oligonucleotide

<400> 256
tttgcggccg ctcatgaaca ttctgttaggg gccactgt

38

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Tyr Asp Tyr Tyr Pro Glu Glu
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<210> 267
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<400> 268
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<210> 270
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1 5 10